



PCT Receipt  
PTO2 Rec'd PCT/PTO 0 8 AUG 2003

XA-9544

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Sakae MATSUMOTO et al.

Appln. No.: 09/936,564

Group Art Unit: 3682

Filed: September 14, 2001

Examiner: B. Van Pelt

For: COUPLING STRUCTURE OF EXTENSIBLE SHAFTS

\* \* \*

REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:


The official filing receipt and the Notice of Acceptance (copies attached) show the filing date of the underlying international application as March 26, 2001.

It is respectfully requested that these documents be corrected, as shown in red on the accompanying copies, to indicate the international filing date as January 26, 2001. See the attached cover sheet from the published international application

Respectfully submitted,

MWS:lmb

Miles & Stockbridge P.C.  
1751 Pinnacle Drive, Suite 500  
McLean, Virginia 22102  
(703) 903-9000  
August 8, 2003

By:   
Mitchell W. Shapiro  
Reg. No. 31,568

*Handwritten signature*  
 OIP  
 AUG 08 2003

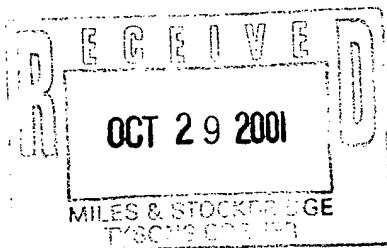


**UNITED STATES PATENT AND TRADEMARK OFFICE**

COMMISSIONER FOR PATENTS  
 UNITED STATES PATENT AND TRADEMARK OFFICE  
 WASHINGTON, D.C. 20231  
 www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/936,564	09/14/2001	3682	860	XA-9544	2	2	1

000181  
 MILES & STOCKBRIDGE PC  
 1751 PINNACLE DRIVE  
 SUITE 500  
 MCLEAN, VA 22102-3833



**CONFIRMATION NO. 7144**

**FILING RECEIPT**



\*OC00000006947686\*

Date Mailed: 10/25/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Sakae Matsumoto, Gunma-ken, JAPAN;  
 Tadashi Hibino, Gunma-ken, JAPAN;  
 Takeshi Negishi, Gunma-ken, JAPAN;  
 Satoshi Onozato, Gunma-ken, JAPAN;

**Domestic Priority data as claimed by applicant**

THIS APPLICATION IS A 371 OF PCT/JP01/00532 ~~03/26/2001~~ 01/26/2001

**Foreign Applications**

JAPAN 2000-019049 01/27/2000

**Projected Publication Date: To Be Determined - pending completion of Security Review**

**Non-Publication Request: No**

**Early Publication Request: No**

**Title**

Connection structure of extendable shaft

Preliminary Class

074

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Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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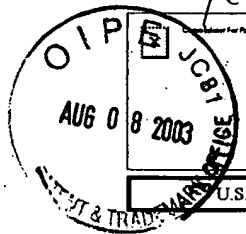
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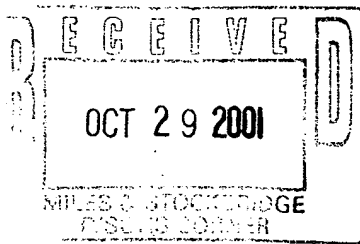
10/29/01



U.S. PATENT AND TRADEMARK OFFICE, WASHINGTON, D.C. 20513

U.S. APPLICATION NUMBER NO. 09/936,564	FIRST NAMED APPLICANT Sakae Matsumoto	ATTY. DOCKET NO. XA-9544
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000181  
MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833



INTERNATIONAL APPLICATION NO. PCT/JP01/00532
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I.A. FILING DATE <del>03/26/2001</del> 01/26/2001	PRIORITY DATE 01/27/2000
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CONFIRMATION NO. 7144  
**371 ACCEPTANCE LETTER**  
\*OC00000006947687\*

mws

Date Mailed: 10/25/2001

**NOTICE OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C 371 AND 37 CFR 1.494 OR 1.495**

The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as a Designated Office (37 CFR 1.494), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is **ACCEPTED** for national patentability examination in the United States Patent and Trademark Office.

The United States Application Number assigned to the application is shown above and the relevant dates are:

09/14/2001  
DATE OF RECEIPT OF 35 U.S.C. 371(c)(1), (c)(2)  
and (c)(4) REQUIREMENTS

09/14/2001  
DATE OF RECEIPT OF ALL 35 U.S.C.  
REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. **THE DATE APPEARING ON THE FILING RECEIPT AS THE " FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371 REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE.** The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363). Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

The following items have been received:

- U.S. Basic National Fee
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Information Disclosure Statements
- Oath or Declaration

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

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KAYA L LEWIS BALTIMORE

Telephone: (703) 305-3695

PART 1 - ATTORNEY/APPLICANT COPY

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2001年8月2日 (02.08.2001)

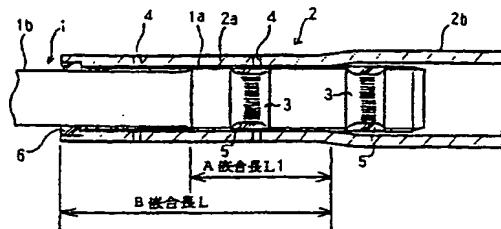
PCT

(10) 国際公開番号  
WO 01/55610 A1

- (51) 国際特許分類: F16D 3/06 Satoshi [JP/JP]; 〒371-0853 群馬県前橋市総社町1丁目8番1号 日本精工株式会社内 Gunma (JP). 日比野正 (HIBINO, Tadashi) [JP/JP]. 根岸武司 (NEGISHI, Takeshi) [JP/JP]; 〒371-0845 群馬県前橋市鳥羽町78番地 日本精工株式会社内 Gunma (JP).
- (21) 国際出願番号: PCT/JP01/00532
- (22) 国際出願日: 2001年1月26日 (26.01.2001)
- (25) 国際出願の言語: 日本語 (74) 代理人: 井上義雄 (INOUE, Yoshio); 〒103-0027 東京都中央区日本橋3丁目1番4号 画廊ビル3階 Tokyo (JP).
- (26) 国際公開の言語: 日本語 (81) 指定国 (国内): DE, GB, US.
- (30) 優先権データ: 特願2000-19049 2000年1月27日 (27.01.2000) JP 添付公開書類:  
— 国際調査報告書
- (71) 出願人 (米国を除く全ての指定国について): 日本精工株式会社 (NSK LTD.) [JP/JP]; 〒141-8560 東京都品川区大崎1丁目6番3号 Tokyo (JP). 2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。
- (72) 発明者; および
- (75) 発明者/出願人 (米国についてのみ): 松本 栄 (MATSUMOTO, Sakae) [JP/JP]. 小野里智 (ONOZATO,

(54) Title: CONNECTION STRUCTURE OF EXTENDABLE SHAFT

(54) 発明の名称: 伸縮自在シャフトの結合構造



A...FITTED LENGTH L1  
B...FITTED LENGTH L

(57) Abstract: A connection structure of extendable shaft, wherein resin is filled in recessed grooves (3) formed in a male spline-fitted part (1a) of an inner shaft (1) through filling holes (4) formed in a female spline-fitted part (2a) of an outer shaft (2) so as to form resin sliding parts (5) at these fitted parts (1a) and (2a) of these both shafts (1) and (2), and a resin ring (6) is installed on the inner peripheral surface of the outer shaft (2) at the tip of the female spline-fitted part (2a), whereby the tip part of the outer shaft (2) can be moved smoothly forward of a vehicle because the resin ring (6) slides on the outer peripheral surface of the small diameter part (1b) of the inner shaft (1) even if the tip part of the outer shaft (2) comes off from of the male spline-fitted part (1a) of the inner shaft (1) at the time of collapse by a secondary collision.

[続葉有]

WO 01/55610 A1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/00532

<p>A. CLASSIFICATION OF SUBJECT MATTER Int.C1<sup>7</sup> F16D3/06</p> <p>According to International Patent Classification (IPC) or to both national classification and IPC</p>																																
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) Int.C1<sup>7</sup> F16D3/06</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <table border="0"> <tr> <td>Jitsuyo Shinan Koho</td> <td>1926-1996</td> <td>Toroku Jitsuyo Shinan Koho</td> <td>1994-2001</td> </tr> <tr> <td>Kokai Jitsuyo Shinan Koho</td> <td>1971-2001</td> <td>Jitsuyo Shinan Toroku Koho</td> <td>1996-2001</td> </tr> </table> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>			Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2001	Kokai Jitsuyo Shinan Koho	1971-2001	Jitsuyo Shinan Toroku Koho	1996-2001																						
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<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>GB, 002316150, A (Kabushiki Kaisha Yamada Seisakusho), 18 February, 1998 (18.02.98), Fig. 8, &amp; JP, 10-45006, A (Yamada Seisakusho et al.)</td> <td>1, 2</td> </tr> <tr> <td>Y</td> <td>JP, 5-185511, A (Gunze Limited), 27 July, 1993 (27.07.1993), Fig. 2; page 1, left column, lines 32 to 37, (Family: none)</td> <td>1, 2</td> </tr> <tr> <td>Y</td> <td>JP, 10-246369, A (Bridgestone Corporation), 14 September, 1998 (14.09.98), Fig. 1; page 2, right column, lines 5 to 31, (Family: none)</td> <td>2</td> </tr> </tbody> </table> <p><input type="checkbox"/> Further documents are listed in the continuation of Box C.      <input type="checkbox"/> See patent family annex.</p> <table border="0"> <tr> <td>* Special categories of cited documents:</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"E" earlier document but published on or after the international filing date</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"&amp;" document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table> <table border="1"> <tr> <td>Date of the actual completion of the international search 04 April, 2001 (04.04.01)</td> <td>Date of mailing of the international search report 17 April, 2001 (17.04.01)</td> </tr> <tr> <td>Name and mailing address of the ISA/ Japanese Patent Office</td> <td>Authorized officer</td> </tr> <tr> <td>Facsimile No.</td> <td>Telephone No.</td> </tr> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	GB, 002316150, A (Kabushiki Kaisha Yamada Seisakusho), 18 February, 1998 (18.02.98), Fig. 8, & JP, 10-45006, A (Yamada Seisakusho et al.)	1, 2	Y	JP, 5-185511, A (Gunze Limited), 27 July, 1993 (27.07.1993), Fig. 2; page 1, left column, lines 32 to 37, (Family: none)	1, 2	Y	JP, 10-246369, A (Bridgestone Corporation), 14 September, 1998 (14.09.98), Fig. 1; page 2, right column, lines 5 to 31, (Family: none)	2	* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means		"P" document published prior to the international filing date but later than the priority date claimed		Date of the actual completion of the international search 04 April, 2001 (04.04.01)	Date of mailing of the international search report 17 April, 2001 (17.04.01)	Name and mailing address of the ISA/ Japanese Patent Office	Authorized officer	Facsimile No.	Telephone No.
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Bib Data Sheet

CONFIRMATION NO. 7144

<b>SERIAL NUMBER</b> 09/936,564	<b>FILING OR 371(c) DATE</b> 09/14/2001 <b>RULE</b>	<b>CLASS</b> 074	<b>GROUP ART UNIT</b> 3682	<b>ATTORNEY DOCKET NO.</b> XA-9544
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**APPLICANTS**  
 Sakae Matsumoto, Gunma-ken, JAPAN;  
 Tadashi Hibino, Gunma-ken, JAPAN;  
 Takeshi Negishi, Gunma-ken, JAPAN;  
 Satoshi Onozato, Gunma-ken, JAPAN;

**\*\* CONTINUING DATA \*\*\*\*\***  
 This application is a 371 of PCT/JP01/00532 01/26/2001

**\*\* FOREIGN APPLICATIONS \*\*\*\*\***  
 JAPAN 2000-019049 01/27/2000

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**\*\* 08/20/2004**

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**GROUP 3600**

Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no	<b>STATE OR COUNTRY</b> JAPAN	<b>SHEETS DRAWING</b> 2	<b>TOTAL CLAIMS</b> 2	<b>INDEPENDENT CLAIMS</b> 1	
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance					
Verified and Acknowledged	Examiner's Signature _____	Initials _____			

**ADDRESS**  
 181

**TITLE**  
 Connection structure of extendable shaft

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